APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/605,157	09/11/2003	Howard Andrew Gutowitz	2003,001/TS	2156

21909   7590   12/09/2009

CARR LLP
670 FOUNDERS SQUARE
900 JACKSON STREET
DALLAS, TX 75202

EXAMINER
NGUYEN, TANH Q

ART UNIT	PAPER NUMBER
2182	

MAIL DATE	DELIVERY MODE
12/09/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 November 2009 (RCE)*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-27* is/are pending in the application.

    4a) Of the above claim(s) *2,4-6,12,13,16 and 20-25* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3,7-11,14,15,17-19,26 and 27* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *16 September 2008* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1.   A request for continued examination under 37 CFR 1.114, including the fee set

forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this

application is eligible for continued examination under 37 CFR 1.114, and the fee set

forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action

has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on

November 17, 2009 has been entered.

Claim Objections

2.   Claim 1 is objected to because of the following informalities:

"said keys" in line 5 should be replaced with --said plurality of keys—for

consistency with "a plurality of keys" in line 2

Claim Rejections - 35 USC § 112

3.   The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5.   Claims 1, 3, 7-11, 14, 15, 17-19, 26-27 are rejected under 35 U.S.C. 112, first

paragraph, as failing to comply with the written description requirement. The claim(s)

contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claims 1, 3, 7-11, 14, 15, 17-19, 26-27 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites "a plurality of printable symbols, pre-conversion symbols, post-conversion symbols, and non-conversion symbols" in lines 3-4. The limitation suggests that the pre-conversion symbols, the post-conversion symbols, and the non-conversion symbols are printable symbols. The specification suggests the pre-conversion symbols, the post-conversion symbols, and the non-conversion symbols being printable symbols. It appears that "a plurality of printable symbols, said plurality of printable symbols comprising pre-conversion symbols, post-conversion symbols, and non-conversion symbols" is more appropriate.

Claim 1 recites "such that at least one fixed sequence of keystrokes corresponds to more than one pre-conversion symbol" in lines 7-8. The limitation suggests the possibility of a sequence of n keystrokes corresponding to a number of pre-conversion symbols that is different from n. It appears that the specification does not suggest such a possibility. It appears that "such that at least one fixed sequence of keystrokes corresponds to more than one sequence of pre-conversion symbols" is more appropriate.

Claim 1 recites "a plurality of symbol-input-end symbols, each of which can be

input by a keystroke on one of a plurality of keys, each key having a printable symbol

assigned to it" in lines 11-12. The limitation suggests the possibility of each of a

plurality of symbol-input-end-symbols being inputted by a keystroke on the same key of

a plurality of keys. The limitation also suggests "a plurality of keys" in this particular

recitation being different than "a plurality of keys" in line 2, and possibly "a plurality of

keys" in addition to "a plurality of keys" in line 2. It also appears that the specification

suggests a symbol-input-end symbol being generated (note that input does not have the

same scope as generated, and that line 26 of claim 1 suggests a symbol-input-end-

symbol being generated) with a keystroke on a subset of the plurality of keys, with the

symbol-input-end-symbol causing the post-conversion corresponding to prior keystrokes

to be displayed, and the keystroke causing a following pre-conversion symbol to be

displayed. It also appears that the specification does not support (at least for the

example corresponding to FIG. 13) the keystroke on a key generating the symbol-input-

end-symbol having a printable symbol assigned to it (note that a printable symbol

suggests either a pre-conversion symbol, a post-conversion symbol, or a non-

conversion symbol). It also appears that the specification suggests that there can only

be one symbol-input-end-symbol being generated by one of a plurality of possible

keystrokes that causes the post-conversion symbol corresponding to prior keystrokes to

be displayed, and a pre-conversion symbol to be displayed right after the post-

conversion symbol – the pre-conversion symbol corresponding to the one of the plurality

of possible keystrokes. Clarification is required.

Claim 1 recites "a second mechanism to recognize, upon input of a symbol-input-

end symbol of said plurality of symbol-input-end-symbols, elements of a set of trigger

sequences of keystrokes and thereby trigger conversion of at least one pre-conversion

symbol displayed on said display to at least one post-conversion symbol" in lines 16-20.

Again, it appears that the specification supports only one symbol-input-end-symbol

being generated - rather than "input of a symbol-input-end symbol of said plurality of

symbol-input-end-symbols". It is also not clear what applicant meant by <u>a set of trigger</u>

<u>sequences of keystrokes</u>, and what applicant meant by <u>elements</u> of a set of trigger

sequences of keystrokes. It is also not clear how input of one symbol-input-end-symbol

can trigger conversion of at least one pre-conversion symbol to at least one post-

conversion symbol (note that "at least one post-conversion symbol" suggests the

possibility of more than one post-conversion symbols). Clarification is required.

Claim 1 recites "wherein said set of trigger sequences of keystrokes has at least

two parts" in line 21. It appears that "a trigger sequence having at least two parts" is

more appropriate than "a set of trigger sequences of keystrokes having at least two

parts". Furthermore, it is not clear whether the specification supports "at least two

parts", or supports only "two parts". Clarification is required.

Claim 1 recites "the sequence" in line 22. There is insufficient antecedent basis

for the limitation in the claim.

Claim 1 recites "said sequence" in line 23, and "said sequence" in lines 23-24.

There is insufficient antecedent basis for the limitations in the claim.

Claim 1 recites "wherein said symbol-input-end-symbol is generated as a result

of a keystroke of any printable symbol that follows a tone mark printable symbol" in lines

26-27. The recitation suggests "a keystroke" in line 26 being a keystroke that is different from "said keystroke" in line 23, and different from "a keystroke" in line 11. Furthermore, the specification appears to support a "tone mark" being a pre-conversion symbol rather than a printable symbol (note that printable symbol suggests the possibility of post-conversion symbol).

Claim 7 recites "a third mechanism to convert a sequence of pre-conversion symbols to a post-conversion symbol upon recognition of said trigger sequences by the second mechanism" in lines 1-3. It appears that there is only one trigger sequence that is recognized in FIG. 13 by the second mechanism for converting a sequence of pre-conversion symbols to a post conversion symbol. Clarification is required.

Claim 9 recites "other input symbols" in line 2. Claim 10 recited "other input symbols" in line 3. The limitation suggests "other input symbols" being symbols different from "printable symbols". Furthermore, "other input symbols" is ambiguous because there is no prior recitation of input symbols.

Claim 26 recites "wherein said post conversion symbol is set in a correspondence to a sequence of pre-conversion symbols" in lines 1-2. It is not clear which of this correspondence and the correspondence in lines 9-10 of claim 1 is being used. It also appears that there is no difference between the two correspondences.

Claim 27 recites "such that at least one fixed sequence of keystrokes corresponds to more than one sequence of pre-conversion symbols" in lines 1-2. It is not clear which of this limitation and the limitation in lines 7-8 of claim 1 is being used. It also appears that there is no difference between the two limitations.

6.   As shown above, the invention was not claimed in a way which particularly points out and distinctively defines the metes and bounds of the subject matter illustrated by FIG. 13 of applicant's disclosure, and includes possibilities that are not supported by the specification. Because of the numerous outstanding 112 issues, it is not possible to clearly determine the scope of the claims.

The examiner therefore strongly suggests that applicant maps limitations of claims 1, 7, 9 and 26-27 to specific teachings in the disclosure (preferably by column, line numbers and/or labels and drawings of US publication 2005/0060448 – by Gutowitz) to avoid unnecessary 112 rejections, help the examiner determine the scope of the claims and further the prosecution - when amending the claims. The examiner notes that when an applicant maps out the limitations of a claim, 112 rejections are usually less likely.

Note that the USPTO is justified in requiring the applicant to more precisely define the metes and bounds of the claimed invention by holding the claim unpatentable under 35 USC 112, second paragraph, as indefinite - if a claim is amenable to two or more plausible claim constructions. Note further that the examiner cannot determine whether there is allowable subject matter – if and when the scope of the claims cannot be determined. There is no patentability to an invention with a scope of claims that cannot be determined.

The examiner also suggests that applicant review claims 2, 4-6 and 12 (the withdrawn claims that depend on claim 1) and make sure that there is no 112 issue with those claims – to allow the examiner to rejoin and examine those claims when claim 1 is

found to be allowable.

7.   The rejections that follow are based on the examiner's best interpretation of the

claims.

Claim Rejections - 35 USC 103

8.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

9.   Claims 1, 7-11, 14, 18-19, 26-27 are rejected under 35 U.S.C. 102(b) as being

anticipated by Balakrishnan et al. (US 5,952,942). Claims 8-9, 14 are rejected under 35

U.S.C. 103(a) as being unpatentable over Balakrishnan et al..

10.   As per claim 1, Balakrishnan teaches a text-entry system (FIGs. 1-2) based on

trigger sequences comprising

        1) a plurality of keys (FIG. 1),

        2) a plurality of printable symbols, the plurality of printable symbols comprising

pre-conversion symbols (symbols on keypad, FIG. 1), post-conversion symbols (text in

display 14, FIG. 1) and non-conversion symbols (number, text that are not converted in

display 14, FIG. 1),

                such that at least one of said plurality of keys is assigned more than one

        of said pre-conversion symbols (FIG. 1) and

such that at least one fixed sequence of keystrokes (2255 (col. 4, lines 19-21)) corresponds to more than one pre-conversion symbol ~~or sequence of pre-conversion symbols~~ (BALK BALL CALK CALL (col. 5, lines 3-5)),

each of said post-conversion symbols being set in a correspondence to a pre-conversion symbol ~~or sequence of pre-conversion symbols~~ (e.g. pre-conversion symbols CALL correspond to post-conversion symbols CALL),

3) a plurality of symbol-input-end symbols each of which can be input by a keystroke on <u>one of a plurality of keys, each</u> key having a printable symbol assigned to it (col. 6, lines 43-50),

4) a display (14, FIG. 1) to display said plurality of printable symbols,

5) a first mechanism to display said plurality of printable symbols in response to keystrokes (13, 17 - FIG. 1), and

6) a second mechanism to recognize, upon input of a symbol-input-end symbol <u>of said plurality of symbol-input-end-symbols</u>, ~~elements of a set of trigger sequences~~ a trigger sequence of keystrokes and thereby trigger conversion of a said pre-conversion symbol or pre-conversion sequence displayed on said display to a post-conversion sequence comprising a post-conversion symbol (symbol-input-end is inputted in step 197, FIG. 5 to set a last word - hence triggering conversion of pre-conversion sequence in the display area 17 to post-conversion sequence in display area –5; 2255 followed by key 19 followed by a key that is neither key 19 or key 18 is an element of a set of trigger sequences of keystrokes (see 182-184-190-192-195-197, FIG. 5); step 193 FIG. 5 suggests other elements of the set of trigger sequences of keystrokes),

wherein the trigger sequence of keystrokes has two parts:

a first part of the sequence that corresponds to said post-conversion symbol (all keystrokes prior to step 197, FIG. 5); and

a second part of the sequence including a keystroke (not Key 19 (step 192) nor Key 18 (step 195) – FIG. 5) that will convert said sequence into a post-conversion symbol and at the same time display said post-conversion symbol (step 197, FIG. 5),

wherein the symbol-input-end-symbol is generated as a result of a keystroke of any printable symbol (any symbol on the keypad that is neither Key 18 nor Key 19 - following step 190).

Balakrishnan further teaches pinyin entries and selection of a desired post-conversion symbol based on one of a plurality of numbers displayed (col. 8, lines 49-67). Balakrishnan does not teach a tone mark being used for selection. It would have been obvious to one of ordinary skill in the art to associate a plurality of tone marks to a plurality of numbers displayed because the use of the tone mark is second nature to a pinyin user and would allow the pinyin user to display a desired post-conversion symbol based on the tone mark.

Note that the claim currently does not require displaying pre-conversion symbol d in box 1385 of FIG. 13.

11.   <u>As per claim 7</u>, Balakrishnan teaches converting a sequence of pre-conversion symbols to a post conversion symbol upon recognition of a trigger sequence by the second mechanism (see rejection of claim 1 above) – hence a third mechanism for such conversion.

12.   As per claim 8, Balakrishnan does not teach the third mechanism being

physically remote from the first mechanism. It was however recognized in the art that

implementing two mechanisms separately is no more than an obvious variant of

implementing two mechanisms together – hence the third mechanism being physically

remote from the first mechanism being no more than an obvious variant of the

implementation disclosed by Balakrishnan.

13.   As per claim 9, Balakrishnan teaches the conversion being performed based on

a context comprising other input symbols (31, 33, 34 – FIG. 2; col. 4, line 48-col. 5, line

5).

14.   As per claim 10, Balakrishnan teaches a predictive text mechanism operating to

select pre-conversion symbols for display based on a context comprising other input

symbols (31, 33, 34 – FIG. 2; col. 4, line 48-col. 5, line 5).

15.   As per claim 11, Balakrishnan teaches a Next key (key 19, FIG. 1) for

incrementing symbols in an ordered list containing more than one element, the Next key

being characterized in that a keystroke on the Next Key does not generate a symbol-

input-end-symbol (col. 6, lines 30-38).

16.   As per claim 14, Balakrishnan teaches a first Next key such that a keystroke on

the first Next key advances the pre-conversion symbols in an order and does not

generate a symbol-input-end-symbol (col. 6, lines 30-38). In addition, it was known in

the art to incorporate a separate Next key such that a keystroke on the separate Next

key advances non-conversion symbols in an order and does not generate a symbol-

input-end-symbol in order to select a desired non-conversion symbol. It would have

been obvious to one of ordinary skill in the art to incorporate a second Next key that is

used for advancing non-conversion symbols and does not generate a symbol-input-end-

symbol in order to select a desired non-conversion symbol.

17.   As per claim 18, Balakrishnan teaches a word-based predictive mechanism (col.

4, line 17-col. 5, line 5).

18.   As per claim 19, Balakrishnan teaches a word-completion mechanism (col. 4, line

17-col. 5, line 5).

19.   As per claims 26-27, see the rejections of claim 1 above.

Response to Arguments

20.   Applicant's arguments with respect to the elected claims have been considered

but are moot in view of the new ground(s) of rejection and/or not persuasive.

Applicant argues that Balakrishnan discloses a single key to be used to proceed

to an end-of-word mode, not a disclosure of a symbol-input-end symbol. The argument

is not persuasive because the examiner does not consider the symbol-input-end symbol

to be the symbol used in steps 195-197, not the symbol used in steps 182-184. The

claim is currently not specific enough to preclude the examiner considering the symbol-

input-end symbol to be the symbol used in steps 195-197.

Applicant argues that Balakrishnan does not disclose a symbol-input-end symbol

that is generated as a result of a keystroke of any printable symbol that follows a tone

mark. The argument is moot in view of the new grounds of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TANH Q. NGUYEN whose telephone number is (571)272-4154. The examiner can normally be reached on M-F (9:30AM-6:00PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, TARIQ HAFIZ can be reached on (571)272-6729. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/TANH Q. NGUYEN/
Primary Examiner, Art Unit 2182

TQN: December 7, 2009